

#### REMARKS

Claims 20-29, 31-32, and 36-38 are pending in this application. Claims 20-29, 31-32 and 36-37 have been rejected under 35 U.S.C. § 112, second paragraph. Claim 38 is newly added by the amendment herein.

Applicants respectfully request that the Examiner reconsider the patentability of the claimed inventions as set forth in the amended claims herein. The amendments to the claims to obviate the Section 112, second paragraph rejections as set forth in the Office Action do not change the scope of the claims. The amendments to the specification made to obviate the Section 112 rejection have been made to make reference to "SEQ IN NO:8" which has been added to the supplemental Sequence Listing filed herewith. Claim 38 is newly added by the present amendment. No new matter is added by the present amendments.

The present amendments to the claims are believed to put all the active pending claims in proper condition for allowance.

#### Section 112, Paragraph 2 Rejection

Claims 20-29, 31-32, and 36-37 were rejected under 35 U.S.C. §112, second paragraph for indefiniteness for failure to refer to the amino acid sequence of the beta chain of human hemoglobin. All the claims as amended herein now directly or  
  
supplemental Sequence Listing in paper and computer readable form

as requested by the Examiner. Support for this sequence is found in U.S Patent No. 5,843,888 and Hernan, R.A., et al., Biochemistry 31:8619 (1992). The disclosures of both references have been incorporated into the present specification by reference and were included in applicant's Information Disclosure Statement filed on December 22, 2000. Therefore no new matter has been added by the supplemental Sequence Listing in the present amendment. It is respectfully submitted that the rejection under 35 U.S.C. §112, second paragraph is now obviated and should be withdrawn.

#### Supplementary Sequence Listing

SEQ ID NO: 8, submitted herewith in a supplemental Sequence Listing at the Examiner's request in computer readable form and paper form, is the amino acid sequence of the beta chain for human hemoglobin as discussed above.

The undersigned hereby states that the computer readable form of the supplemental sequence listing submitted herewith is the same as the (paper) "Sequence Listing" to which it is indicated to relate. This submission contains no new matter.

#### Information Disclosure Statements/Forms 1449

A copy of the Information Disclosure Statement ("IDS")

pursuant to 37 C.F.R. 1.97(c) along with the fee required by 37 C.F.R. 1.17(p).

Formal Drawings

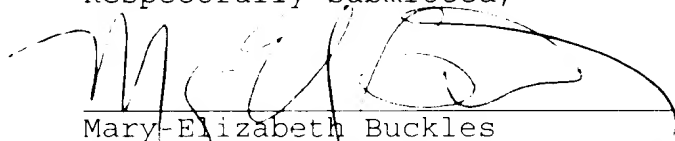
Formal drawings are submitted herewith.

CONCLUSION

In view of the above amendments and discussion, it is submitted that the claims are in condition for allowance, and reconsideration of the rejections is requested. Allowance of Claims 20-29, 31-32, and 36-38 at an early date is respectfully solicited.

If the Examiner notes any further matters which she believes would be expedited by a telephonic interview, she is requested to contact Mary-Elizabeth Buckles at the telephone number listed below.

Respectfully submitted,



Mary-Elizabeth Buckles  
Registration No. 31,907

REED SMITH LLP  
Attorneys for Applicants

Mary-Elizabeth Buckles  
Reed Smith LLP  
1301 K Street, N.W.  
Suite 1100 - East Tower  
Washington, D.C. 20005